



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/328,893	06/09/1999	JORG SCHABERNACK	Q54532	7430

7590 11/29/2006

SUGHRUE MION ZINN MACPEAK & SEAS PLLC  
2100 PENNSYLVANIA AVENUE N W  
WASHINGTON, DC 200373213

EXAMINER
----------

DUONG, OANH L

ART UNIT	PAPER NUMBER
----------	--------------

2155

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/328,893

Applicant(s)

SCHABERNACK ET AL.

Examiner

Oanh Duong

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09/25/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-10 are presented for examination.

### *Claim Objections*

2. Claims 5-6 are objected to because of the following informalities: the term "may" should not be used in the claims. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over M.P. Bosse et al. (hereafter, **Bosse**), Management of SDH Network Elements: An application of Information Modeling, Electrical Communication, 4<sup>th</sup> Quarter 1993, pages 229-338 in view of **Bennett** et al. (hereafter, Bennett), U.S. Patent No. **5,189,733**.

Regarding claim 1, **Bosse** teaches a Synchronous Digital Hierarchy (SDH) network which includes several network elements (see first column of text on page 329), and the network elements in this SDH network are managed using managed object (see third column on page 331).

**Bosse** does not explicitly teach checking in response to a request for access to one of a plurality of managed objects whether this requested object is stored in the memory; if this requested object is not stored in the memory, checking whether there is sufficient memory space to write this object into the memory; if there is no sufficient memory space, swapping at least one of the stored objects out of the memory to a database according to at least one predeterminable criterion; and reading the requested object from the database and writing it into the memory.

**Bennett** teaches memory management system wherein application programs with limited available memory capacity is executed (see abstract). Bennett teaches checking in response to a request for access to one of a plurality of managed objects whether this requested object is stored in the memory (i.e., *determines if an object is present in the memory when the object is called*, col. 7 lines 6-9);

if this requested object is not stored in the memory (i.e., *if the object is not present in the memory*, col. 7 lines 5-10), checking whether there is sufficient memory space to write this object into the memory (i.e., *the memory is checked to determine if sufficient memory space is available for the desired object*, col. 7 lines 11-13);

if there is no sufficient memory space (i.e., if additional memory space is required, col. 7 line 13-14), swapping at least one of the stored objects out of the memory to a database according to at least one predeterminable criterion (i.e., *available memory is increased by swapping out one or more objects*, col. 7 lines 14-18); and

reading the requested object from the database and writing it into the memory (i.e., *copying the object from I/O device to the memory*, col. 7 lines 18-24).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have utilized Bennett's memory management system for devices implementing object oriented programming, in the object oriented SDH network controller taught by Bosse. One would be motivated to do so to make the greatest use of the memory in a controller (Bennett, col. 7 lines 14-16).

Regarding claim 2, **Bosse** teaches method as claimed in claim 1.

**Bosse** does not explicitly teach the objects which are accessed most frequently remain in the memory.

**Bennett** teaches based on the criterion, the objects which are accessed most frequently remain in the memory (see col. 7 lines 16-18).

It would have been obvious to one ordinary skill in the art at the time of the invention was made to modify **Bosse** to remain objects which are accessed most frequently in the memory as in **Bennett**. One would be motivated to do so to increase available memory by deleting only the least recently used objects (Bennett, col. 7 lines 14-16).

Regarding claim 3, Bosse-Bennett teaches a method as claimed in claim 2 wherein only a predeterminable number of recently access object remain in the memory (Bennett, *the system employ a "a least recently used" algorithm to select object to be suspended, col. 2 lines 14-16*).

Regarding claim 6, Bosse-Bennett discloses the predeterminable criterion is a maximum number which indicates how many objects may remain stored in the memory (Bennett, limited available main memory capacity, col. 4 lines 3-6).

Regarding claim 7, this claim comprises a network element for a Synchronous Digital Hierarchy network for performing the method claim 1, discussed above, same rationale of rejection is applicable.

Regarding claim 8, Bosse-Bennett discloses the memory is a semiconductor memory, and wherein the database is implemented on a nonvolatile mass storage, particularly on a hard disk (Bennett, col. 7 lines 20-24).

Regarding claim 9, this claim comprises a Synchronous Digital Hierarchy network with network elements for performing the method claim 1, discussed above, same rationale of rejection is applicable.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bosse, in view Bennett, and further view of Finni (USPN 5,941,978).

Regarding claim 4, the combination of teachings of Bosse and Bennett does not teach CMISE filter as claimed. However, Finni teaches the predeterminable criterion is a filter function, particularly a CMISE filter function, which indicates which objects are to remain stored in the memory (see col. 1 lines 36-63 and col. 4 lines 14-44). Therefore, it

Art Unit: 2155

would have been obvious to have used the CMISE filter function as taught by Finni in the combination of teachings Bosse and Bennett because it enables the network management system to select a target group for CMIP management operation applied to a network element of a communication network.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bosse, in view Bennett, and further view of Horvitz, US 6,182,133 B1.

Regarding claim 5, Bosse teaches a method as claimed in claim 1.

the combination of teachings of Bosse and Bennett does not explicitly teach the predeterminable criterion is a length of time which indicates how long each of the objects may remain stored in the memory.

Horvitz teaches system wherein items are cached (seen in abstract). Horvitz teaches a length of time which indicates how long each of the objects may remain stored in the memory (i.e., age of the cached web resource, page 4 paragraph [0072]).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teachings of Bosse and Bennett to use length of time which indicates how long each of the object remain stored in the memory as taught by Horvitz. One would be motivated to do so to improve response time at each client computer (Horvitz, page 7 paragraph [0018]).

Art Unit: 2155

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bosse, in view Bennett, and further view of Mishra, US 6,339,587.

Regarding claim 10, Bosse the Synchronous Digital network as claimed in claim 9.

The combination of teachings of Bosse and Bennett does not explicitly teach the network element as claimed. However, Mishra teaches network elements are at least one of crossconnects, add-drop multiplexers, and line multiplexer (see col. 6 lines 7-10). Therefore, it would have been obvious to have used the elements as taught by Mishra in the combination of teachings of Bosse and Bennett because it would add or extract signals as required so as satisfying the request.

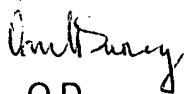
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Oanh Duong whose telephone number is (571) 272-3983. The examiner can normally be reached on Monday- Friday, 9:30PM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2155

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



O.D

November 16, 2006